6643

Diag. Cht. No. 1207

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey HYDROGRAPHIC

Field No. 1006 Office No. H-6643

LOCALITY

State Massachusetts

General locality

Locality Boston

1940

CHIEF OF PARTY

F.L.Peacock

LIBRARY & ARCHIVES

DATE

B-1870-1 (1)

6643

Form 537
Ed. Dec. 1930

REG. NO.

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

HYDROGRAPHIC TITLE SHEET

The Hydrographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

Field No. 1006

REGISTER NO. H6643

State Massachusetts

General locality ~~Atlantic Coast Boston Approaches~~

Locality ~~Entrances to~~ Boston Harbor

Scale 1 : 10,000 Date of survey May - September, 1940

Vessel Sub-Party Ship OCEANOGRAPHER

Chief of Party ~~Fred.~~ L. Peacock

Surveyed by H. E. Finnegan and J. C. Bull

Protracted by S. C. Diliberto and D. M. Stanley

Soundings penciled by D. M. Stanley

Soundings in ~~fathoms~~ feet

Plane of reference M.L.W.

Subdivision of wire dragged areas by

Inked by K.H. Carstens

Verified by K.H. Carstens A.R. Stirni } checking rolls
L. Tigler }

Instructions dated February 17, 1940

Remarks:

U. S. GOVERNMENT PRINTING OFFICE

DESCRIPTIVE REPORT - SHEET NO. 1006 (Field)

INSTRUCTIONS:

This survey was executed under authority of Director's Instructions dated February 17, 1940 for Project No. HT-246.

CONTROL AND SIGNALS:

Signals consisted mostly of natural objects such as tanks, stacks, cupolas, lighthouses, etc.. Few additional signals had to be built by the hydrographic party.

The principal sources of control and signal locations were the 1934 triangulation survey of Boston Harbor Area, the 1940 triangulation of P. L. Bernstein - signals GREEN and REW only, air-photo compilations Nos. T-5774 (1938) and T-5775, (1938) field inspection by the hydrographic party using compilations, and sextant fixes for locating additional signals. Signal RED from T-5775 was found to be in error and was reinspected by the hydrographic party and relocated on the smooth sheet. Narrows Beacon and Narrows Lighthouse are confusedly labeled on T-5775. Narrows Lighthouse which was used by the hydrographic party, is the southwesterly of the two objects. Triangulation Stations shown on the sheet were recovered in 1939 by the air-photo field inspection party of L. W. Swanson in preparation for the current hydrographic surveys. These stations were identified by the hydrographic party in the field, but no additional recovery notes were made.

SURVEY METHODS:

The usual visual control method of sextant fixes was used throughout. The shoal water portable recording fathometer type 808 was used for depth recording. During the early part of the season, difficulty was experienced with the motor speed, but after a new motor was finally installed on July 15th, excellent results were obtained as a whole. Difficulties with motor speed were noted by the officer in charge in a letter to the Chief of the Division of Hydrography and Topography dated July 9th, 1940 and in the Fathometer Questionaire submitted September 1, 1940.

During the early part of the season, the echo obtained from kelp and submerged rubbish was sometimes recorded in the record book in place of the true depth which appears on the marigram as a solid line below the mark produced by the echo from the kelp or rubbish. It is believed that all these questionable soundings have been investigated on the marigram and these erroneous soundings rejected in the record.

Due to lack of uniform motor speed during the early part of the season, it was necessary to apply a correction to the soundings when the motor speed varied from the true speed. When the motor is operating at true speed, the paper should travel at the rate of two inches per minute. This paper speed gave the best indication of when the motor was functioning properly or improperly and also gave a simple method of determining the percentage correction to be applied to the soundings when the motor was not operating at the proper speed. All marigrams were scaled for the rate of speed and the percentage corrections noted in the record book when the speed was found to be out.

After applying the speed corrections to the soundings when the fathometer motor was found to be operating off speed, the soundings agreed remarkably well. It is thought that no appreciable discrepancies occured from this source. After applying the necessary corrections, all existing discrepancies were well within the plus or minus one percent designed speed regulation of this type of fathometer. It is theoretically possible to have crossing discrepancies of two per cent of the depth when the fathometer is operating within the limits of its design. However no discrepancies of this magnitude were found which could attributed to lack of proper speed regulation or of applying the necessary corrections due to this lack.

The main system of lines was run in an east and west direction, in the general direction of the currents and normal to the general trend of the shore line. Very strong currents were encountered in Nantasket Roads, North Channel, and around the islands separating these areas. Great difficulty was experienced in running the necessary system of sounding lines.

DISCREPANCIES:

No apparent serious discrepancies were found in the smooth plotting. Crossings agreed very well. Some discrepancies appearing on the boat sheet were cleared up when the marigrams were examined and it was found that the soundings recorded in the record books were echos obtained from kelp or other debris and not from the bottom. In many areas, the very uneven bottom makes it appear that discrepancies exist which is not the case.

DANGERS:

All dangers to navigation were reported when found. On approaching close to islands small boats should navigate with caution as there are many sunken rocks, all of which are impossible to locate.

CHANNELS:

The North Channel is the main ship channel and is well buoyed. There are no ranges for this channel. The least depth found during this survey is 38½ feet. The South Channel is not as well marked and the ranges are not very sensitive. Lines of hydrography were run on the ranges and the channel seems clear of obstructions, the least depth found in this channel being 31½ feet. The Narrows Channel can be used only by ships of lesser draft, the least depth found being 26½ feet. There are strong currents in this channel and it is very narrow. Caution should be used when the channel is navigated at times of maximum flood and ebb currents.

ANCHORAGES:

Anchorages recommended in the Coast Pilot are in agreement with the results of this survey., No additional recommendations are submitted.

COMPARISON WITH PREVIOUS SURVEYS:

All previously determined shoal indications were reported to have been plotted on the boat sheet and investigated by hydrography and in some parts by wire drag. As no information on the amount of wire drag done or the dangers and least depths obtained are at hand at this office, no comparison can be made. The more important shoals are listed on a separate sheet of this report and the least charted depth and the least depth obtained on this survey is given. As in most instances the depths obtained on this survey are deeper than those charted at present, it is recommended that these shoals be further investigated or that they be wire dragged or both. Processing Office list of shoals checked both by verifier and reviewer. As it is unnecessary to the completed survey it has been removed from this report.

GEOGRAPHIC NAMES:

No new geographic names appear on this sheet. Due to the congested areas on this sheet, few (none) names were lettered on the sheet. The names appearing on the latest copy of chart No. 246 are correct.

MISCELLANEOUS:

Cable crossings were checked by the local office of the U. S. Engineers to be correct as shown on Chart No. 246.

Dredged channel data as obtained from the U. S. Engineers was forwarded separately by the field party to the Washington Office. B.P. 34886 presumably.

Most buoy positions as finally determined on the smooth sheet is the average position of the several positions recorded for each buoy.

In some places there are shoal soundings surrounded by deeper soundings in the vicinity of reefs and no notations are made in the record books regarding these shoal soundings. These shoal spots appear to be a continuation of these various shoals, reefs, etc.

In Lat. 42 19.85' Long. 70 53.28' there is a 1½ foot sounding on line with three rocks. Although no notation is made in the record book and this sounding appears to be surrounded by deeper water, it is believed to be on a rock which is probably a continuation of the three rocks shown. O.K.

NOTE:

This report is prepared from notes submitted by the field party

Respectfully submitted

H. Arnold Karo
Officer in Charge,
Norfolk Processing Office.

Norfolk, Virginia.
May 19, 1941.

STATISTICS, HYDROGRAPHIC SHEET NO. 1006 **H6643**

Date	Letter Day	Vol. No.	Positions	Soundings	Miles, Statute	Boat Used
6/11/40	a	1	58	405	5.0	Surf Boat C.&G.S.
6/15/40	b	1	46	414	7.5	" " "
6/22/40	c	1	46	46		Dinghy
6/24/40	d	1	22	22		"
7/18/40	e	1	31	225	4.6	Surf Boat C.&G.S.
7/19/40	f	1	66	450	7.4	" " "
7/19/40	f	2	96	686	11.2	" " "
7/20/40	g	2	149	1200	14.7	" " "
7/24/40	h	3	187	1530	21.4	Launch #4c126
7/25/40	j	5	158	1200	15.5	" "
8/1/40	k	3	96	765	16.0	" "
8/1/40	k	4	39	252	5.1	" "
8/2/40	l	5	120	900	12.0	" "
8/6/40	m	4	146	1060	16.4	" "
8/8/40	n	4	81	426	8.5	" "
8/8/40	n	6	85	640	11.2	" "
8/9/40	p	6	24	17		" "
8/12/40	q	7	186	936	17.8	" "
8/13/40	r	6	208	960	17.0	" "
8/14/40	s	7	145	665	12.1	" "
8/14/40	s	8	29	146	1.7	" "
8/15/40	t	8	191	1448	29.8	" "
8/17/40	u	9	87	469	7.8	" "
8/23/40	v	9	45	369	8.4	" "
8/27/40	w	9	166	845	11.0	" "
8/27/40	w	10	16	66	0.9	" "
8/28/40	x	10	229	1186	17.0	" "
8/29/40	y	11	234	1284	23.0	" "
8/30/40	z	10	74	395	7.4	" "
8/30/40	z	12	122	648	7.2	" "
9/3/40	aa	11	77	460	11.6	" "
9/3/40	aa	13	96	594	15.9	" "
9/4/40	bb	12	199	974	24.8	" "
9/5/40	cc	13	159	896	22.1	" "
9/6/40	dd	14	179	1085	22.3	" "
9/7/40	ee	13	30	136	4.2	" "
9/7/40	ee	15	154	690	23.0	" "
9/9/40	ff	14	111	652	14.3	" "
9/9/40	ff	16	46	333	7.5	" "
9/10/40	gg	15	145	804	18.2	" "
9/10/40	gg	17	48	270	4.2	" "
9/11/40	hh	16	171	1130	26.1	" "
9/12/40	jj	17	93	490	11.1	" "
9/13/40	kk	16	59	320	7.6	" "
9/13/40	kk	18	199	1036	24.2	" "
9/17/40	ll	17	175	928	16.5	" "
9/17/40	ll	18	37	177	3.1	" "
9/18/40	mm	20	3	85		" "
9/19/40	nn	18	72	400	7.9	" "
9/19/40	nn	19	147	822	19.1	" "
9/20/40	pp	20	118	645	15.2	" "
9/21/40	qq	19	84	473	11.7	" "
9/23/40	rr	20	153	950	22.2	" "
	Totals-	--------	5737	33985	650.4	

STATISTICS, HYDROGRAPHIC SHEET NO. 1006 H6643

Date	Letter Day	Vol. No.	Positions	Soundings	Miles, Statute	Boat Used
9/24/40	ss	21	23	113	1.2	Launch#4c126
9/28/40	tt	21	9	7		Surf Boat C&G.S
5/9/40	A	22	129	1548	35.5	Rodgers
5/14/40	B	22	71	864	21.1	"
5/14/40	B	23	77	912	21.7	"
5/16/40	C	23	87	1044	14.1	"
5/20/40	D	23	48	576	12.9	"
5/20/40	D	24	45	540	10.8	"
5/27/40	E	24	157	1884	38.0	"
5/29/40	F	25	92	1104	22.0	"
5/30/40	G	26	104	1248	32.2	"
6/3/40	H	26	119	1428	34.1	"
6/3/40	H	27	37	444	12.0	"
6/14/40	J	27	128	1408	33.8	"
6/17/40	K	28	130	1170	29.1	"
6/19/40	L	29	180	1620	37.0	"
6/22/40	M	29	31	28		Rodgers Dinghy
6/24/40	N	29	65	585	13.3	Rodgers
6/24/40	N	30	6	54	1.4	"
8/17/40	P	31	18	8		"
8/20/40	Q	31	6	3		"
8/30/40	R	31	4	2		"
9/20/40	S	31	49	5		"
8/17/40	A	32	1	1		Marindin
8/20/40	B	32	6	4		"
8/22/40	C	32	1	1		"
8/30/40	D	32	2	2		"
9/14/40	E	32	4	2		"
6/11/40	a	33	4	4		Dinghy
6/13/40	b	33	23	23		"
9/5/40	c	33	9	9		"
9/21/40	d	33	1	19		"
9/23/40	e	33	3	60		"
	Totals---	-----	1669	16720	370.2	

Field Records Section (Charts)

HYDROGRAPHIC SHEET NO. H6643

The following statistics will be submitted with the cartographer's report on the sheet:

Number of positions on sheet	7406
Number of positions checked	250
Number of positions revised	37
Number of soundings recorded	50705
Number of soundings revised	799
Number of soundings erroneously spaced	25
Number of signals erroneously plotted or transferred	0

Date:

Verification by R. H. Carstens
A. R. Stirni
L. Taylor

Time: 426 hrs
162
75
518

Review by J. A. McCormick 12/31/41

Time: 126 hrs.

2629

HYDROGRAPHIC SURVEY NO. H6643

Smooth Sheet One

Boat Sheet One

Records; Sounding 33 Vols., Wire Drag ___ Vols., Bomb ___ Vols.

Descriptive Report Yes

Title Sheet Yes

List of Signals Yes (in vol. #1)

Landmarks for Charts (Form 567) Yes

Statistics Yes

Approved by Chief of Party Yes

Recoverable Station Cards (Form 524) None

Special Chart for Lighthouse Service (Circular Nov.30, 1933) Yes (Chart #246)

Hydrography: Total Days 67 ; Last Date Sept. 28, 1940

Remarks 48 rolls Graphic Fathometer Recordings (Sub. Sig. Co.)

(1) enlarged plan showing hydrography at piers.

2776

	Remarks	Decisions
1		423709
2		423708
3		423709
4		423709 U.S.G.B
5		423709 "
6		423708
7		423709
8		423709
9		423708
10		423708
11		423708
12		423708
13		423709
14		423708
15		423708
16		423708
17		423709 U.S.G.B.
18		423709
19	For title	
20	Location of tide staff	423709
21	" " "	423709
22	" " "	423708
23	" " "	
24		
25		423709 U.S.G.B
26		
27		
M 234		

GEOGRAPHIC NAMES

Survey No. H6643

Name on Survey	A, On Chart No.	B, On previous survey No.	C, On U. S. quadrangle Maps	D From local information	E On local Maps	F P. O. Guide or Map	G Rand McNally Atlas	H U. S. Light List	K	
Aldridge Ledge	—									1
Calf Island	✓									2
DeerIsland	✓									3
Gallups Island	✓									4
Georges Island	✓									5
Great Brewster	✓									6
Long Island	✓									7
Lovell Island	✓									8
Martin Ledge										9
Middle Brewster	✓									10
Outer Brewster	✓									11
Point Allerton	✓									12
Rainsford ~~Ramsford~~ Island	✓									13
Roaring Bulls	✓									14
Thieves Ledge										15
Ultonia Ledge										16
Nantasket Roads										17
Spectacle I.	✓									18
Boston Harbor										19
Hull										20
Nut I.										21
Boston Light										22
Boston (Appraisers Wharf)										23
										24
Peddocks I.	✓									25
										26
										27

Names underlined in red approved by L. Heck on 2/3/42

M 234

POST-OFFICE ADDRESS: 600 Flatiron Bldg., Norfolk, Virginia.

TELEGRAPH ADDRESS:

EXPRESS ADDRESS:

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

20th August 1941.

11 AUG 21 - AM 8:38

To: The Director,
U. S. Coast and Geodetic Survey,
Washington, D.C.

From: Officer in Charge,
Norfolk Processing Office.

Subject: Hydrographic Survey No. H-6643, Approaches to Boston Harbor.

Reference: 80-AB 8-19-41.

In reply to the above reference, you are respectfully advised that the soundings entered in the sounding records for this survey were not checked against the fathograms after I assumed charge of this office although it was my impression that they had been checked. I can find no definite record that they were checked, so that in the absence of definite proof it must be assumed that they were not checked. The speed corrections were checked, and numerous soundings were checked after the smooth sheet was plotted in order to check possible discrepancies or otherwise questionable soundings.

Mr. Finnegan can most probably furnish information as to whether or not these soundings were checked by the field party.

Mr. Finnegan not sure. Records checked in Washington Office.

J.A.M.

H. Arnold Karo
Officer in Charge
Norfolk Processing Office.

730R
730

80-AB

August 19, 1941.

To: Officer in Charge,
U.S.C. & G.S. Processing Office,
600 Flatiron Building,
Norfolk, Virginia.

From: The Director,
U. S. Coast and Geodetic Survey.

Subject: Hydrographic Survey No. H-6643, Approaches to Boston Harbor.

Please inform this office as to whether the soundings entered in the sounding records for hydrographic survey No. H-6643 were checked against the fathograms. Mr. Zeskind, who was in this office yesterday, was of the opinion that they had been checked but could not be sure as no statement to that effect could be found in the sounding records or descriptive report.

(Signed) J. H. HAWLEY

Acting Director.

Form 712
DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY
Rev. June 1937

TIDE NOTE FOR HYDROGRAPHIC SHEET

Coastal Surveys June 26, 1941

Division of Hydrography and Topography:

Division of Charts: Attention: Mr. H. R. Edmonston. ✓

Plane of reference approved in
33 volumes of sounding records for

HYDROGRAPHIC SHEET 6643

Locality Boston Harbor

Chief of Party: Fred L. Peacock
Plane of reference is mean low water reading
3.0 ft. on tide staff at Boston Light
25.3 ft. below B. M. 1
2.9 ft. on tide staff at Hull
13.6 ft. below B. M. 1
4.2 ft. on tide staff at Nut Island
29.4 ft. above B. M. 1
3.3 ft. above datum of tabulations at Boston (Appraisers Wharf)
18.2 ft. above B. M. 7

Height of mean high water above plane of reference is 8.9 feet at Boston Light, 9.2 feet at Hull and Nut Island, and 9.4 feet at Boston (Appraisers Wharf.)

Condition of records satisfactory except as noted below:

Chief, Division of Tides and Currents.

U. S. GOVERNMENT PRINTING OFFICE 154327

FORM M-238

MEMORANDUM

IMMEDIATE ATTENTION

SURVEY
DESCRIPTIVE REPORT
~~PHOTOSTAT OF~~

No. H H6643

~~No. T~~

received May 24, 1941
registered May 26, 1941
verified
reviewed
approved

This is forwarded in order that your attention may be directed to the matters as indicated below. Please initial in column 3 as an acknowledgement that your attention has been thus directed. The complete original records are available if desired. If you cannot give this your immediate attention, please initial, note, and forward to the next section marked, calling for the records at your convenience.

ROUTE		Initial	Attention called to
20			
22			
24			
25	✓	MW	Page 2
26			
30			
40			
62			
63			
82			
83			
88			
90			

RETURN TO

82	T. B. Reed

✓ 8350

DIVISION OF CHARTS

SURVEYS SECTION

REVIEW OF HYDROGRAPHIC SURVEY

REGISTER NO. H-6643
FIELD NO. 1006

Massachusetts; Boston Harbor
Surveyed in May-Sept. 1940, Scale 1:10,000
Instructions dated Feb. 17, 1940 (OCEANOGRAPHER)

Soundings: Type 808 Recorder

Control: Sextant fixes on shore signals

Chief of Party - F. L. Peacock
Surveyed by - H. E. Finnegan; J. C. Bull
Protracted by - S. C. Deleberto; D. M. Stanley
Soundings plotted by - D. M. Stanley
Verified and inked by - R. H. Carstens
Reviewed by - J. A. McCormick, December 31, 1941
Inspected by - H. R. Edmonston

1. Shoreline and Signals

The subject is adequately covered in the descriptive report, page 1.

2. Sounding Line Crossings

Satisfactory. Apparent discrepancies are due to rugged bottom.

3. Depth Curves

Satisfactory in general but the old surveys are more detailed around shoals and islands.

4. Adjoining Surveys

Excellent junctions were effected with H-6642 (1940) on the southeast and H-6644 (1940) on the northeast. Project instructions require surveys of the area covered by Chart 246. This would necessitate further surveys on the west but not on the east.

5. Previous Surveys

a. H-648 (1858), 1:5000; H-652 (1858), 1:10,000; H-1960 (1817-46-53), 1:20,000; H-1961 (1817-46-53), 1:20,000

These surveys can be dismissed as containing no information of sufficient detail or accuracy as to require discussion in this review.

b. H-2146 (1892), 1:10,000; H-2161 (1892-93), 1:10,000; H-2163 (1893), 1:10,000; H-2167 (1893), 1:10,000; H-2425 (1899), 1:10,000; H-3406 (1912), 1:5,000.

These are the surveys responsible for most of the information now charted. They were well executed and, in most places, agree remarkably well with the present hydrography. There have been some changes but apparently not many. Spacing of lines on the present survey appears a bit wide in some sections of the area but this has been remedied, where necessary, by carrying forward critical depths from the old surveys. The present hydrography has obtained some shoal depths missed by the older surveys but on the other hand it has been necessary to carry forward 75 of the old soundings in order to make the present survey basic. Individual discussion of each sounding retained or rejected is not considered necessary. The reviewer has spent double the time usually required for a review of this nature in checking and rechecking old soundings, checking against wire drag surveys, etc. The survey is now as complete as it can be made with the information at hand in this office and, with indicated additions, supersedes all previous hydrographic surveys made by this Bureau in the area under consideration.

6. Wire Drag Surveys
H-3780 (1915) W.D.; H-6609 (1940) W.D.

Dragging of this area has not been completed. A depth of 14 feet (charted) in lat. 42°18.9', long. 70°55.3' on H-2146 (1892) was disproved by a drag depth of 18 feet on H-6609. Depths of 18 feet charted in lat. 42°20.15', long. 70°51.9' from Chart Letter 518 of 1915 and 24 feet (charted) in lat. 42°19.5', long. 70°50.3' on H-3780 W.D. were disproved by drag depths of 23 and 28 feet respectively on H-6609. An obstruction reported struck with a depth of 19 feet (uncorrected for tide) is charted in lat. 42°18.9', long. 70°52.0' from a report filed as Chart Letter 713 of 1938. An effective depth of 21 feet on H-6609 is the principal reason for removing the obstruction from the chart. Soundings obtained on the drag surveys have been added to the present survey except in the two instances noted. Conflicts between drag depths and hydrography have been eliminated except for an occasional difference of a foot which could easily be due to lift.

? 70° 52.5'

7. Comparison with Chart 246 (New Print of May 20, 1941)
Chart 1207 (New Print of Sept. 17, 1940)

a. Hydrography

All but a very few of the soundings charted in this area are from surveys discussed in the foregoing paragraphs. U. S. Engineers' surveys are authorities for some of the soundings along the main channels. Dispositions of the few conflicting depths remaining after comparison with old surveys are as follows:

(1) Specks in lat. 42°19.3', long. 70°58.6', lat. 42°19.5', long. 70°58.6' and in lat. 42°20.4', long 70°55.7' are defects in printing and should be removed from the charts.

(2) The 14 foot depth charted in lat. 42°21.2', long. 70°55.7' from House Doc. 931--63rd Congress--2nd Session falls in 20 feet on the present survey and should be retained on the chart until disproved. (13ft grounding on H-7059(1945)WD

(3) The 23 foot depth charted in lat. 42°21.8', long. 70°54.8' was reported in Chart Letter 302 of 1940 as the depth over an obstruction. It was investigated by wire drag on H-6609 (1940) W.D. and a depth of 16 feet found about 200 meters southwest of the reported position. The 23 is to be removed.

(4) The 28 foot depth charted in lat. 42°21.55', long. 70°54.4' was traced back to the first standard for Chart 246 but no further. It falls in 38 feet of water on the present survey and is considered erroneous but should be retained until disproved. (Retain 28 : See Review H-7059(1945)WD.) - E.F.J. 10/11/49

(5) The 30 foot depth charted in lat. 40°21.4', long. 70°54.4' ← 30 → 28/ and the 10 foot depth in lat. 40°20.8', long. 70°54.8' apparently are from B.P. 34886 of 1939. They fall in 38 and 37 feet of water respectively on the present survey. The Blueprint is distorted and lacking in common points necessary for application to the chart but the two depths are to be retained until disproved.

Disregard 10ft. See Review H-7158(1944)W.D. - E.F.J. - 10/11/49

(6) Authority could not be found for specks resembling rocks charted in lat. 42°20.1', long. 70°55.5'. They are to be removed from the chart.

(7) The 14 foot depth charted in lat. 42°19.95', long. 70°52.5' apparently is an erroneous application of an 18 on H-2146 (1892). The 18 has been added to the present survey and the 14 should be disregarded.

(8) A 30 foot depth charted in lat. 42°19.3', long. 70°51.8' falls in 37 feet on the present survey. Origin of the 30 could not be found and it is to be disregarded.

(9) More printing defects appear in lat. 42°18.7', long. 70°52.7' and in lat. 42°18.8', long. 70°52.8'. They are to be removed from the chart.

(10) Removal from charts of obstruction reported in lat. 42°18.9', long. 70°52.0' has already been recommended in par. 6. The reviewer cannot stress too strongly the amount of work which has gone into the investigation of items noted above and in the preceding paragraphs. Further retentions or rejections of soundings by the chart compiler are not desirable. It will be necessary, however, to retain bottom characteristics because of lack of such data. It may also be necessary to supplement present depth curves and detail around shoals and islands.

b. Navigational Aids

Floating aids were found to be mostly within 100 meters of the positions charted. None are sufficiently out of position as to seriously menace navigation.

8. Compliance with Project Instructions

Par. 18 of the instructions requires a determined effort to verify or disprove all wrecks, critical depths, reported shoals or other obstructions shown on the latest print of Chart 246 and definite recommendations in the descriptive report regarding retention or rejection for charting of such features. Par. 20 requires general verification and systematic augmentation of bottom characteristics on previous surveys. The descriptive report and the preceding paragraphs of this review are referred to as regards these matters.

9. Additional Field Work Recommended

When the project is resumed, additional investigation of the following items is suggested:

(1) Overlap and develop shoal area inside 12 foot curve in lat. 42°20.6', long. 70°58.6'.

(2) Investigate further charted depths of 14 feet in lat. 42°21.2', long. 70°55.7' (par. 7a(2)), 28 feet in lat. 42°21.55', long. 70°54.4' (par. 7a(4)), 30 feet in lat. 40°21.4', long. 70°54.4' (par. 7a(5)), and 10 feet in lat. 40°20.8', long. 70°54.8' (par. 7a5). ← 13 ft on H-7059(1945)WD; 30→28 per; *disproved H-7158(1946)WD

(3) Investigate possible strays of 9 feet in lat. 42°17.7', long. 70°58.9' and 13 feet in lat. 42°18.1' long. 70°58.05'. Not disproved by H-7719(1948) W.D. G.F.L.

10. Superseded Surveys

H-648	entirely
H-652	"
H-1960	in part
H-1961	"
H-2146	" "
H-2161	" "
H-2163	" "
H-2167	" "
H-3406	entirely

Examined and approved.

Chief, Surveys Section

Chief, Division of Charts

Chief, Section of Hydrography

Chief, Division of Coastal Surveys

Applied to Chart Cor. 50 March, 11, 1943 HSW

Partially applied to Cht. 246 3/20/43 G.R.
" " " " 1207 3/20/43 G.R.

Applied to reconstruction of chart 246 1/11/44 g.H.S.

Chart 1207 compared with chart 246 (48-9/6) for critical changes F.M.A. Oct '48

Chart 1207 - fully applied thru chart #246 delivered 3/23/60

CHT 248 EXTENSION F.W. Mahany 11/5/69